

# MINING journal VOL. 298

AND

# MINING magazine VOL. 146

# INDEX

1982

JANUARY-JUNE

## CONTENTS

Metals and Minerals	Page 1
Countries	Page 3
Methods and Machines	Page 7
Companies and Other Public Bodies	Page 9

## INDEX CLASSIFICATION

A Article	L Letters	N Notes and Comments
D Mining Digest	M Methods and Machines	O Obituaries
E Editorial	ME Company Meetings	P Panorama
H Highlights	MF Mining Finance	R Book Reviews
IA Industry in Action	MW Mining Week	S Metal Markets

This combined index covers the complete editorial content of both Mining Journal and Mining Magazine. Additional copies may be obtained from the Subscription Department.

## Metals and Minerals

### ALUMINIUM

Invergordon Al smelter to close	MW J007
Aluminium advice for Japanese government	IA J015
Potline closure for Kaiser	IA J030
Alcoa to shut down potline	IA J030
More cutbacks for Kaiser	IA J050
Lochaber modernisation	IA J050
Alcoa to shut down potline	IA J051
Alcoa closes potline	IA J066
Sumitomo extension plan	IA J066
Dubai output triples	IA J067
Aluminium: an optimistic view	MW J080
Asahan complex inaugurated	IA J088
Sumitomo suspension	IA J088
IPAI reports on 1981	IA J088
U.S. Al output down	IA J101
U.S. Al output down	IA J103
Aluminium: an optimistic view	MW J119
Boyer Island aluminium smelter commissioned	IA J125
Mitsui firms agree on merger	IA J125
Aluminium refinery study for Mozambique	IA J141
IPAI stocks	IA J142
Gulf contract for Kaiser	IA J182
U.S. primary Al production down	IA J179
Cutback decision rescinded	IA J200
Fire at Venatim	IA J216
Kaiser capacity below half	IA J234
Al production down	IA J235
NE smelter extension plan	IA J253
Endesa smelter cutbacks	IA J254
No joy for Venezuela	MW J270
Japan to stockpile aluminium	IA J277
Kurri Kurri potline postponement	IA J291
Cutback for Norwegian Al producer	IA J292
Plumbing the depths	MW J301
Rise for U.S. aluminium	IA J308
Aluminium	S J320
Sumitomo announces smelter shutdown	IA J323
Cuts planned by Martin Marietta	IA J323
VAW continues cutbacks	IA J323
New low for aluminium	S J356
Kaiser closure	IA J359
Reynolds cuts back at Longview	IA J359
Indian potlines lack power	IA J359

Gladstone production cut to 85%	IA J375
Gulf Aluminium plant	IA J376
First aluminium from Valeul	MW J385
Aluminium output falls	IA J395
Invergordon progress?	IA J395
Alcoa Point Comfort closure	IA J397
The modernisation of Lochaber aluminium smelter	A M399
Slow progress for Chinese refinery	S J414
Potline closure in Ghana	IA J418
IPAI stocks unchanged in April	IA J457
Smelter talks fail	IA J470
Endesa reduces Al output	IA J470
Aluminium output falls	IA J471
Valeul, Brazil's new aluminium smelter now on stream	P M443

### ANTIMONY

Czech antimony production process	IA J359
-----------------------------------	---------

### BARYTES

Barytes mine for Yugoslavia	IA J374
-----------------------------	---------

### BAUXITE

Bauxite levy eased	MW J024
Jamaica closure	IA J051
Guyana falls short of target	IA J085
Australian bauxite for Czechoslovakia	IA J087
Delay in signing bauxite pact	IA J087
Bauxite mine for Hungary	IA J180
Further decline in Guyana's production	MW J169
Further decline in Jamaican production	MW J169
Bauxite bartering deal signed	IA J180
Mitchell Plateau feasibility study	IA J233
Hard times for Caribbean producers	MW J247
Jamaican bauxite target	IA J323

Sharp decline for Jamaican exports	IA J344
Bauxite-alumina deal considered	IA J380
Bauxites Parassae expansion	IA J397
Feasibility work on Sardinian bauxite	IA J418

### CHROME

Ferrochrome supply and demand	N J041
Ore carrier lost	IA J183
Greek chrome project	IA J456

### COAL

Oaky Creek contracts	IA J014
Pakistan coal deposits	IA J039
Go-ahead for coal project	IA J029
Dania go-ahead	IA J030
Loan for coal projects	IA J030
Polish coal predictions	IA J030
Concern over coal deal	IA J030
Mine purchase for Marlin Investments	IA J031
Archangels Basin coal	MW J044
Indonesian coal exploration	IA J049
Dynalectron in coal study	IA J050
Coal must close the gap	N J057
Dispute over NSW's third coal loader	MW J062
Canayan reserves proved	IA J085
New JV for coal and energy	MW J081
Deserado contract for Harrison Western	IA J086
Safety award for Gold Fields' South African coal mine	P M005
Orchard Valley mine	A M030
Belvoir still in doubt	MW J096
Rising costs for Australian coal	IA J103
Sale of Colorado coal mines	IA J104
Drayton lease finalised	IA J124
Wedgehead spending programme	IA J125
China predicts 1982 coal output	IA J125
Glennell HIF released	MW J137
Weekatharra results confirmed	IA J141
Indiana coal laboratory	IA J142
Kashakhstan coal	IA J142
Soviet coal below target	IA J142
Coal futures case	IA J142

South African coal sales	IA J143
Simon Group contracts	IA J143
Clash over coal freight rates	MW J156
Project deferment	MW J156
Coal in Polish ports	IA J161
Carbopol agreements	IA J161
Gulf Resources buys coal reserves	IA J161
Coal terminal study	IA J162
11 Mt/y plus coal project in Transvaal	P M122
Coal production up	IA J179
Mt. Gunnison start-up	IA J180
Griffin dispute settled	IA J181
Tarong project	IA J181
Utah coal for Ireland	IA J181
Workington coal terminal	IA J183
Coal shipment cuts	IA J183
Coal through Hunterston?	IA J183
Record achievements	MW J195
Gloomy forecast	MW J195
Coal terminal for U.S.	IA J199
Coal port for Ghent	IA J199
Coal areas for development	IA J199
New coal corporation	IA J199
Coal find for Chile	IA J215
Thermal coal project	IA J215
Utah Development seeks higher coal price	IA J216
Ashland Coal: Spanish stake	IA J217
Wankie coal prices	MW J229
CSB increases brown coal reserves	IA J233
More Belvoir indecision	MW J247
Stockpiling Queensland coal?	MW J248
Brazilian power plant cancelled	IA J253
Witbank coal for Japan	IA J255
Poland offers coal to Japan	IA J255
Coal fares better	MW J271
Mobil report	IA J276
Standard Oil coal deal	IA J276
Indian coal for Bangladesh	IA J277
British coal for Sweden	IA J277
Japan orders Chinese coal for 1982	IA J277
Coal/Bic joint venture	IA J277
Coal accord with Occidental	MW J287
KwaZulu mine planned	IA J291
Work on coal port postponed	IA J291
Calaca plant buywater expansion	IA J292
Coal lease for U.S. Steel	IA J292
Coal price increase for BC Resources	IA J293

Dases order B.C. coal  
More coal contracts  
Exports boost U.S. coal  
performance  
Willow Creek study  
completed  
UK hopes to sell to Austria  
Gibbons Creek - new lignite  
mine in Texas  
Artificial islands for the  
coal mining industry  
Problems for N.S.W. coal  
miners  
Hunter Valley projects  
scaled down  
Leader gets go-ahead  
Polish coal seam  
China adds to capacity  
Mining at Glenwood Springs  
in three years  
Griffin increased coal  
deliveries  
Yugoslav coal output  
Permit for coal terminal  
Finance for Yarrow coal  
project  
Fording hit rejected  
Chinese coal mine investment  
Mitsui CSR/CSR coal  
Conversion study  
Action programme for coal  
More coal exports in the  
offing  
Coal discussions for U.K.  
and Brazil  
Japanese in coal development  
Yarrabee coal mine opened  
Black Thunder record  
Australian mines close  
Czech coal plans  
Thermal Energy acquires  
Montana coal rights  
New 3.8 Mt/y export coal  
at in the Hunter  
Valley  
Venezuela's \$300 million  
Carabouna coal project  
Hungary turns to coal  
Five-decade plan for Polish  
coal mining  
Concern over Clutha closures  
Indonesia receives World Bank  
loan  
Coal mine construction for  
Santa Fe  
Coal mine for U.S.S.R.  
Polish coal output rises  
Chilean coal concession  
Indian coal washeries  
Coal venture planned  
Czechoslovakia to increase  
lignite output  
Mansey Coal buys mines  
SHIP coal shipments  
Lignite field in India  
Mitsui postpones SEC plant  
Modernisation of Soviet coal  
mine  
Provisional coal agreement  
Mining order from South  
Korea  
Belvoir: the next step  
Soviet coal find  
Hong Kong market for B.C.  
Coal  
Polish coal exports  
Coal rate pact  
Davy McKee wins licence  
contract  
Opencast expansion project at  
Fankie

## COBALT

Zaire cuts cobalt price  
Cobalt plant on schedule  
Cobalt institute set up  
Cobalt salts for Outokumpu

## COPPER

Production cuts revive  
copper  
RIB loan for Nohanga  
Newmont Christmas shutdown  
Sherritt Gordon cutbacks  
Sahab copper smelter  
Ray Mines plans downtime  
Tailings leach Stage III for  
NCCM?  
Record copper production  
Copper Flats opening  
Sharon Steel suspension  
Jordan's copper hopes  
Dispute over Sahab smelter  
Sar Cheshmeh  
Copper improves  
Ansil drilling results  
Hayden closure  
Four-day week for Cyprus  
PIRA  
New Quebec copper producer  
on stream  
Smelting test recaptures  
ancient copper industry  
Copper becalmed  
Chuganmatana furnace idle  
Ok Tedi finance secured  
Chilean copper mine  
shutdowns  
Copper weakens  
Los Pelambres update  
Cerro Colorado agreement  
More copper cutbacks for U.S.  
producer

Botswana mine to remain open  
Philippines suspensions  
Chile plans copper increase  
Brazil mines suspended output  
Petaquilla rekindled  
Kenscoot cuts back  
U.S. producers act to  
support copper  
Chinese refinery plans  
Magma Copper to cut output  
Zambia copper merger  
Zambian copper and cobalt  
output  
Further Hemet cutbacks  
Pennsolt to reopen mine  
Loan for Compania Minera de  
Casas  
Copper strike again  
Copper belt plan for India  
Closure at Ray  
Stocpiles grow  
Ansil update  
Phebe Dodge halts copper  
production  
Copper perks up  
Ganpe suffers  
Granite closure  
Copper dips briefly  
RTZ plans no copper cutbacks  
Bougainville productions  
India to import copper  
Madeleine Mines closes  
Consolidated Hammer closes  
mine  
Anascondita trim Butte  
Copper restarts  
SPCC force majeure  
Fluor wins contract  
Copper talks postponed  
Financing arrangements for  
Ok Tedi, Stage I  
Gross Gruber aims for  
productivity  
The Dixon copper-gold  
project, Philippines  
Copper cathode shortage  
Copper weakens  
Samin plant gets approval  
Indian copper  
Ok depletion at Madeleine  
Mines  
Copper contracts for Amx  
U.S. copper revival?  
Copper closure extended  
Peko production down  
Force majeure requested  
Kidd Creek force majeure  
Selebi-Pikwe guarantor  
Monterrosa in production  
Copper weakens  
Noranda processing  
Magma cave-in  
A downward revision  
Bullish views on copper  
Zambian targets increased  
Copper production costs  
Copper sage  
Sar Cheshmeh on stream  
Chilean copper output  
Force majeure continues  
Go-ahead for TLP fill at  
Nohanga  
Crisis for copper  
Go-ahead for La Escondida  
Cyprus Flats closes mine  
Citizen Service reduction  
Sherritt Gordon advances  
shutdowns  
Copper mill closure  
Little cheer for copper  
Market for Oman Mining's  
copper?  
Amx halts copper-nickel  
development  
Madeleine Mines closure  
advanced  
Copper fights back  
Threat of mine closures  
Amarillo reduction  
Centromina, Peru, expands its  
Cobriz copper mine

## DIAMONDS

Diamond research funded  
Big fall in CNO sales  
Reserves at Ashton  
New era in diamonds  
Special-purpose vehicles for  
diamond mining  
Further cutbacks by De Beers  
Ashton moves closer to CNO  
Further update on Ashton JV  
diamonds  
Zaire diamond sales  
Afro-West to pursue Ashton  
claim  
Sierra Leone Kimberlite  
Premier sub-mill project  
halted

## GEMSTONES

Israel and emeralds  
Pakistan gem project  
Trouble for Gemstone Corp. of  
Pakistan

## GERMANIUM

Rising supplies

## GOLD

Golden Plateau seeks JV  
strike  
Krugersands in demand  
Zurch removes gold sales  
tax  
Targets for Ladner Creek  
Hartes orders radiometric  
sorter  
New gold coin exchange  
Ok Tedi tunnels development  
Argosy working on tailings  
plant  
Further gold mine planned  
JV for Argosy and Cultus  
S.A. gold output falls  
Joe Mann JV renegotiated  
E.I. India mine profile  
Big Bell gold prospect  
Gold reviewed  
Ok Tedi financing  
More gold coins offered in  
the U.S.  
Golden Dumps buys Deikor  
thickener  
Joe Mann mine deal  
Gold under pressure  
Nickel Plate results  
Damagani reports  
Ayerst re-opens mines  
Owl ore for Kidd Creek  
Electric fault at Kloof  
Care and maintenance for Mt.  
Expansion at Western Deep  
Levels, South Africa  
Troxen for marginal gold  
mines  
Gold field for Central  
Rand  
Gold find for China  
Gold mines for Northern  
Rand  
Rise in Japanese gold  
imports  
Precious metals turnout  
Further fall for the Rand  
Precious metals hold sway  
Mexican gold study  
New gold treatment plant  
Krugersand sales  
Soviet gold  
Russia's mine go-ahead  
Gold mill for Ontario  
Minador suspension  
El Indio officially opened  
The Argold view  
Czech gold prospects  
First blast at Western Deep  
Heavy falls in gold and  
diamonds  
Japanese gold imports jump  
Placer projects progress  
Turon advance for gold  
Brazilian gold study  
Mercur project: 1983 target  
Erugrand sales up  
New London Gold Futures  
Market launched  
Gold futures market  
More gold discovered in  
Japan  
Smoky Valley update  
Wilmour curtains work at  
Red Lake  
Big Bell assays  
Ontario gold mine on target  
FS Geduld accident: target  
not affected  
The Dixon copper-gold  
project, Philippines  
A London view  
Creek fire  
S.A. gold output  
Fimiston optimisation sought  
Meekatharra plant closure  
Bamboo Creek update  
News on Harbour Lights  
prospect  
Bonco on-stream  
WMC reports high output of  
low grade ore  
Work resumes at Rabbit Warren  
gold prospect  
Bullion from Lupin mine  
S.A. gold output  
Nicaragua gold output  
Shaft damage at Durban Deep  
Erugrand sales fall  
Gold price revival in  
prospect  
Gold output rises for  
Krugersand  
Radiometric sorting at  
Buffelsfontein gold/  
uranium mine, South  
Africa  
Golconda commissions plant  
Forecasting the impossible?  
New gold from Telfer  
Other reports on work  
Indian gold refinery  
Reese JV  
Quebec's newest gold  
producer  
The Franco project  
McLaughlin project update  
Philippines produces more  
gold  
Crisis for gold  
Gold studies in NSW  
S.A. gold output falls  
Emperor estimates 1981-82  
output  
Costa Rica improvement  
Japanese gold imports

## GRAPHITE

Flake graphite find  
Chinese graphite find  
Financing of Canadian  
graphite project

## IODINE

Iodine: its markets and  
availability

## IRON

Belgorod iron ore  
Kaiser Idles Eagle Mountain  
Reserve cutbacks  
Expanding iron ore  
production  
Carajas financing agreement  
Iron Ore Co. suspension  
New iron ore capacity  
First ore from Rudnograd  
Sydvanger's new mill  
Chilean iron and steel  
New iron ore mine planned  
for Western Canada  
Further Canadian iron ore  
cutbacks  
Iron ore talks continue  
Fall in U.S. iron ore  
receipts  
Iron shipment talks  
National Steel buys pellet  
plant interest  
Briquette plant closure  
Indian iron for Malaysia  
Iron ore supply for Niger  
Hansa to suspend National  
Steel output  
Iron ore price agreement  
China to buy Brazilian iron  
ore  
Empire and Tilden mines  
idled  
Japan continues iron  
negotiations  
Chinese iron ore find  
Iron Ore Co. of Canada halts  
pellet production  
OCEC production continues to  
fall  
Kacher mine construction  
Nigeria reports iron ore  
reserves  
Kostomuksha combine  
Depressed times for steel  
mills  
Swedish research mine aims to  
raise productivity  
Hydraulic stripping of  
Russian iron ore  
Capannua on stream soon  
Price rise for Robe River  
New mine for Cliffs Robe  
Krupp sponge iron production  
tumbles

## KAOLIN

Consortium to run Jari  
project

## LEAD

Lead and zinc fluctuate  
Trail closure  
Lead and zinc loss ground  
LESG looks back on 1981  
No buyer for Yava mine  
Lavrian plant closure  
Static lead  
Lead smelter closure  
Further lead-zinc  
curtailments  
India estimates lead and  
zinc reserves  
Circus mining postponement  
Kapari mine progresses  
Laurium closure  
Cominco reduction  
Tara output  
World lead output increases  
Lead stocks rising  
Peru: lead and zinc finds  
Lead price falls follow copper  
Mineral targets for  
Yugoslavia  
Salafinsa re-opening  
Lead-zinc work  
Lead and zinc output rises  
Yugoslav lead and zinc  
Lead and zinc fall in  
sympathy  
Lead and zinc fall back  
Smelter refurbishment  
considered  
Plant expansion completed at  
El Mochito, Honduras

## LITHIUM

Lithium contract for Fluor  
subsidiary  
Li, K & S projects in Chile

## MAGNESIUM

Decline on magnesium  
production

Production slips to 5-year low MW J431

## MANGANESE

BHP to cut manganese ore price IA J235  
Chinese manganese find IA J232  
New Soviet manganese mine IA J233  
Carajas manganese: private development IA J438

## MERCURY

Mercury falls S J082  
GSA sells mercury IA J087  
GSA sales IA J233  
McDermitt mine - the U.S.A.'s largest producer of mercury P M261

## MOLYBDENUM

Chinese molybdenum discovery IA J013  
Argentina sets prospecting tender date IA J090  
Placer to reduce molybdenum output IA J051  
Tonopah mill problems for Anaconda IA J125  
Differing outlooks MW J137  
Peko help sought for Molyhill IA J141  
Japan investment for Tonopah? IA J200  
Temporary closure for Endako IA J234  
Pessimism for molybdenum S J371  
Amx to suspend molybdenum production IA J456

## NICKEL

Falconbridge extends shutdown IA J014  
Nickel on the mend S J045  
Falconbridge - temporary shutdown IA J050  
Nickel resource analysis A M061  
Comecon boost for Cuban nickel IA J124  
BCL matte for Zimbabwe MW J137  
Ganget Mountain report IA J141  
Firm prospects for nickel S J196  
Hanna nickel closure IA J234  
Unique ventilation project at Canadian nickel mine P M193  
Start-up at Cerro Matoso MW J246  
Better grades at Agnew IA J278  
Nickel friendless S J320  
Inco Europe cuts nickel output IA J322  
Hanna closes nickel operations IA J322  
Sudbury closure extended IA J343  
Empress nickel mine on c & m? IA J358  
Modest advance for nickel S J390  
Onaping closure IA J395  
Perseverance mine - a prospecting case history A M381  
Cerro Matoso: full production soon IA J438  
Nickel imports trimmed IA J472

## NIOBIUM

Araxa niobium mine A M134

## OIL

Shale oil: Cathedral Bluffs project delayed MW J005  
Rio Blanco completes retort tests MW J025  
No agreement on Alameda IA J065  
Alameda departures MW J097  
Tosco and Mt. Coolon IA J124  
Further setback for Alameda MW J109  
Rundie wins Government approval IA J201  
Further threat to Alameda IA J215  
One month leeway for Alameda IA J254  
Oil gill strains N J283  
Falklands: no major oil reserves IA J201

## PALLADIUM

Palladium replaces gold IA J472

## PHOSPHATE

French finance for Tunisian phosphates IA J087  
Florida waste treatment plant IA J105  
U.S. phosphate: abundance in doubt N J153  
West Sebaya project IA J181  
Burundi awards contract IA J235  
Israeli phosphate IA J307  
Uganda awarded World Bank credit IA J307  
Essential fertilisers N J407

## PLATINUM

U.S. platinum stocks increase S J010  
Precious metals turnout N J181

## POTASH

PCS plans increase IA J030  
Boulby shutdown IA J050  
PCS maintains production levels P M193  
Dead Sea project inaugurated IA J215  
PCS curtails production MW J248  
Potash distribution centre IA J308  
Potash shipments IA J359  
Potash application IA J418

## RARE EARTHS

Rare earths from Molycorp IA J254

## RUITE

Beach sand miners see better times MW J157

## SALT

Dubai salt production IA J013  
New salt cutting machine M J159  
Salt mine for Uzbekistan IA J375

## SILVER

Contract Mining reports silver find IA J013  
Silver processing at Deer Trail IA J013  
Silver surplus diminishes S J063  
Silver study agreement terminated IA J065  
Silver sales reconsidered S J110  
Botswana silver discovery? IA J124  
Sam Goomly update IA J181  
Precious metals turnout N J191  
VCR at Escalante MW J228  
First shipment from Deer Trail IA J253  
Silver from St. Cloud IA J308  
Modified VCR mining at new U.S. silver project P M258  
Bullish silver forecast S J339  
Deer Trail to process underground ore IA J358  
Silver sales IA J376  
Study of silver mill IA J410  
Neal de Angeles on stream MW J440  
Sunshine suspension IA J457  
Silver study behind schedule IA J458

## TANTALUM

GSA awards tantalum contract IA J015  
Tantalum mine closure IA J375

## TIN

Tin falters S J010  
Tin support buying resumed S J028  
Chinese tin find IA J029  
Tin support buying increases S J045  
New surge for tin S J045  
Tin price rise rejected S J063  
Restronguet plans abandoned IA J085

Tin squeeze tightens S J082  
Switzerland to join tin agreement IA J087  
LME acts on tin MW J096  
LME imposes premium limits on tin S J098  
Thailand signs Tin Agreement IA J103  
Rumblings continue MW J118  
Tin traders on tenderhooks S J119  
GSA tin sale IA J126  
Tin squeeze continues S J138  
Brascan plans to boost tin output IA J142  
Indonesia's tin expectations IA J142  
Fall in Malaysian exports IA J181  
Tin promotion and technical development A M158  
Tin turmoil subsides N J187  
Price collapse for tin S J173  
ITC calls up funds S J194  
Tin prospects MW J211  
Tin export controls sought S J213  
Australian tin/tungsten development IA J215  
E.E.C. to sign sixth ITA S J229  
Thai tin output declines IA J234  
Tin dredging at Berjuntai, Malaysia A M200  
ITC defers export control decision S J249  
Marine Mining: permission refused IA J253  
ITC support buoyed tin S J288  
Fall in tin exports IA J293  
Malaysian tin output IA J307  
GSA tin sales IA J308  
Tin exports control boosts price S J330  
Tin plant to re-open IA J323  
Canada sign Tin Agreement IA J324  
ITC export reductions IA J324  
Tin pact ratification no nearer S J339  
Malaysia threatens further cutbacks IA J343  
Export controls steady tin S J356  
Permission for Wheel Concord IA J358  
Tin under pressure S J371  
Tongkah considers new dredge IA J374  
Bleak times for Malaysian tin mines S J390  
Tin: buffer stock buying ebbs S J414  
Malaysian tin output IA J418  
Severe pressure on tin S J435  
Tin plan shelved IA J438  
Fumar GSA tin sales IA J441  
Last days for the Tin Agreement? MW J449  
Hopes for new tin pact recede S J453  
ITA but... IA J457  
Tin responds to ITA MW J465  
Peninsular exports IA J471  
Thai tin exports IA J472  
Tin mineralisation in Central Goias, Brazil A M461

## TITANIUM

Mitsubishi studies Westinghouse proposal IA J141

## TUNGSTEN

Good tungsten grades in Tasmania IA J039  
Rajasthan wolframite IA J124  
Shift reduction at Mt. Carbins IA J254  
Tungsten: isostatic tremors in Bangkok MW J370  
China urged to reduce tungsten output S J288  
Tungsten output to resume rise MW J319  
Tungsten from China IA J458  
Springer mine opening IA J470

## URANIUM

"Think-tank" outlines stock position MW J007  
ACTU reconsiders uranium MW J023  
Indian uranium and lignite discoveries IA J030  
Uranium shipments resumed IA J031

Uranium producers sued in U.S. IA J051  
Ranger deal renegotiated IA J051  
Australia: clearing an export hurdle? MW J081  
Lake Way approval IA J085  
Gas Hills uranium agreement IA J086  
Uranium: a preliminary view N J134  
Australia? for Japan? IA J162  
Chinese uranium moves P M122  
Jabliuka clears another hurdle MW J171  
Uranium agreement for Guyana IA J177  
Australia confirmed as uranium supplier IA J181  
Sri Lanka's uranium potential IA J199  
Belais Mines: official opening IA J200  
Government go-ahead for Jabliuka IA J215  
Agm to end uranium contract IA J235  
Osamu Utsumi - Brazil's first uranium mine P M190  
Western Areas uranium for Germany IA J292  
Soviet uranium for Argentina IA J293  
Japan reports Niger uranium find IA J307  
Australian uranium enrichment IA J309  
Uranium: heading for the top MW J319  
ACTU: uranium quandary MW J345  
Brazil's uranium mine progresses IA J359  
Yaceltire stumbles MW J370  
Protection for domestic uranium producers? MW J449  
Belais Mine A M468

## VANADIUM

Vanadium output down IA J375

## ZINC

Lead and zinc fluctuate S J010  
Zinc on the retreat S J026  
Lead and zinc lose ground S J045  
Zinc: million tons for Kidd Creek IA J050  
Price cuts for zinc S J083  
Tara closure forces Asturias out IA J089  
Zinc musters more support S J082  
Comino cuts zinc output IA J085  
Corpus Christi outback IA J086  
Gordonville schedule IA J101  
Anadolouli closure IA J101  
Ponte Mosca zinc halt IA J101  
Imperial Smelting in 1981 IA J125  
Zinc out for New Jersey IA J125  
Zinc losses ground S J158  
Bunker Hill winter plant sold IA J182  
Zinc steadies S J173  
Leas for Peru IA J178  
Zinc: no respite for Europe MW J210  
Minor rally for zinc S J213  
Zinc prices cut further S J226  
Zinc under pressure S J272  
Boost for Hindustan Zinc IA J278  
Report on zinc plant IA J291  
Pierrepont start-up MW J292  
Que River achieves capacity MW J301  
Canadian brakes MW J305  
Zinc follows the pattern S J303  
Lead and zinc follow copper S J320  
U.S. output falling MW J354  
Lead and zinc output rises S J356  
National Zinc suspension IA J359  
Upper Volta Zn-Pb-Ag discovery IA J374  
Thai zinc agreement IA J374  
Zinc smelter merger planned IA J374  
Jefferson City mine on standby IA J395  
Lead and zinc fall in sympathy S J414  
Zinc fume suspension IA J419  
Lead and zinc fall back S J435

## Countries

### ANGOLA

New Angolan phosphate mine H M197

### ARGENTINA

Argentina sets prospecting tender date IA J029

Argentine prospecting tender H M131

### AUSTRALIA

Golden Plateau seeks JV stake IA J013  
Big Bell share transferred IA J013

Australian coal for India IA J014  
ACTU reconsiders uranium MW J033  
Japan cuts back on coal and iron ore MW J035  
Good tungsten grades in Tasmania IA J039  
Go-ahead for coal project IA J039  
Daunia go-ahead IA J039  
Concern over coal deal IA J030

Newcastle loading problems IA J031  
Ben Lomond ore flown out IA J031  
Buccarie for salvage operation IA J031  
Mining bill deferred IA J031  
Archeringa Basin coal MW J044  
Argoey working on tailings plant IA J050  
Ranger deal renegotiated IA J051





Go-ahead for La Escondida  
Chuquibambilla smelter

IA J438  
H M446

## CHINA

E.S.C. co-operation with  
China  
Chinese molybdenum discovery  
China's metal ahead of  
target  
Chinese tin find  
New JV for coal and energy  
China to use foreign funds  
Chinese ore wharf completed  
Chinese W-Sn plant  
China predicts 1982 coal  
output  
U.K. longwall mining  
equipment to be  
displayed in China  
Chinese coal mining for  
Peabody?  
Chinese uranium moves  
Chinese U, Sn finds  
Chinese Mo find  
Gold find for China  
Chinese refinery plans  
Chinese metals priority  
Japan orders Chinese coal  
for 1982  
Coal accord with Occidental  
Chinese iron ore find  
Chinese manganese find  
China confirms Au find  
Chinese W find  
U.S.-Chinese marketing  
venture  
China adds to capacity  
China signs up U.S. aid  
Chinese graphite find  
Chinese coal mine investment  
Anglin agreement  
Talks on Chinese coal  
venture  
Slow progress for Chinese  
refinery  
Tungsten from China  
China confirms recent Fe  
find  
Chinese Mn find  
China's largest graphite  
find

MW J005  
IA J013  
IA J014  
IA J029  
MW J081  
IA J087  
H M017  
H M017  
IA J125  
M J139  
IA J141  
P M122  
H M129  
H M129  
IA J177  
IA J215  
H M197  
IA J277  
MW J287  
IA J307  
IA J322  
H M266  
H M266  
IA J344  
MW J354  
MW J354  
IA J358  
IA J374  
IA J395  
H M349  
IA J418  
IA J458  
H M446  
H M447  
H M447

## COLOMBIA

Colombian profile  
Colombia plans sponge Fe  
plant  
Major port for El Cerrejón  
Carbolco agreements  
Colombian coal exports  
Start-up at Cerro Matoso  
Completion near for  
Colombian Mi  
Cerro Matoso: Full production  
soon

H J021  
H M013  
H M013  
IA J101  
H M197  
MW J246  
H M355  
IA J438

## COSTA RICA

Costa Rica improvement

IA J471

## CUBA

Comecon boost for Cuban  
nickel

IA J124

## CZECHOSLOVAKIA

Australian bauxite for  
Czechoslovakia  
Coal from Czech spoil tips  
Czech gold prospects  
Fast, cheap Czech method for  
rejuvenating mined  
land  
Czech Au news  
Czech antimony production  
process  
Czech coal plans  
Czechoslovakia to increase  
lignite output

H J087  
H M131  
IA J253  
H J273  
H M263  
IA J359  
IA J397  
IA J438

## DENMARK

Danes order B.C. coal

IA J293

## DUBAI

Dubai salt production  
Dubai output triples

IA J013  
IA J067

## ECUADOR

Profile on Ecuador

N J367

## EGYPT

Egyptian mineral resources  
West Sebaya project  
Egyptian phosphate contract

H M127  
IA J181  
H M267

## EIRE

Strike action closes Tara  
Production for Tara  
Resource unconfirmed  
Mid-year closure for Nogul

MW J023  
IA J179  
IA J179  
IA J210

Outokumpu: interest in Bula  
Tara output

IA J276  
IA J292

## FALKLAND ISLANDS

Falklands: no major oil  
reserves

IA J291

## FINLAND

Tamrock increases production  
capacity  
Finnish Co salts output  
Finnish apatite

IA J103  
H M446  
H M446

## FRANCE

High capacity faces in  
French mine  
Changing times for France  
Elf Aquitaine in minerals  
search  
French consortium to develop  
Shididi deposit  
Prospecting in France  
French exploration permit  
Pechiney cutbacks in France  
BRGM reconsiders ventures

D M105  
H J093  
IA J141  
IA J141  
H M131  
H M263  
IA J457  
MW J466

## GERMANY (WEST)

Polish coal to Germany down  
Modern coal preparation plant  
in F.R.G.  
PMB Wasserhütte wins order  
Krupp supplies excavators  
VAF continues cutbacks  
World's first frequency-  
controlled winder  
F.R.G. opencast mining  
equipment for U.S.  
phosphate mine  
Dense metal separation  
German contest power  
charges  
Boart acquires West German  
plant

IA J014  
M J237  
IA J255  
IA J276  
IA J353  
M J340  
M J372  
M J373  
IA J471  
IA J472

## GHANA

Potline closure in Ghana  
Ghana's bauxite development

IA J457  
H M445

## GREECE

Prospecting in Greece  
Greece begins nationalisation  
programme  
Greek processing plant  
Lavrios plant closure  
Greek prospecting  
Greece-IRA plan  
Laurium closure  
Bauxites Parnassos expansion  
Greek chrome project

IA J029  
IA J031  
H M013  
IA J103  
H M131  
IA J254  
IA J254  
IA J397  
IA J456

## GUYANA

Guyana falls short of target  
Further decline in Guyana's  
production  
Uranium agreement for  
Guyana  
Hard times for Caribbean  
producers  
U exploration in Guyana

IA J085  
MW J169  
IA J177  
MW J247  
H M265

## HONDURAS

Plant expansion completed at  
El Mochito, Honduras

P M443

## HONG KONG

Krupp wins order from Hong  
Kong

IA J200

## HUNGARY

Hungary coal development  
Bauxite mine for Hungary  
Hungarian bauxite mine  
Hungary turns to coal  
Bank loan for coal  
development

H M013  
IA J160  
H M263  
A M258  
H M446

## INDIA

Mineral exploration by  
public sector  
Indian mica for U.S.S.R.  
Australian coal for India  
Soviet aid for Indian  
phosphates  
Indian uranium and lignite  
discoveries  
Indian contract for Hawker  
Siddeley  
British help for Indian  
mines  
Indian mineral reserves news  
India seeks U.S.S.R.  
financing  
Non ferrous problems  
Rajasthan wolframite

MW J009  
IA J014  
IA J014  
IA J029  
IA J029  
IA J086  
IA J087  
H M017  
IA J105  
MW J117  
IA J124

Cobalt plant on schedule  
Indian Fe ore finds  
Iran seeks Indian help  
India estimates lead and  
zinc reserves  
Polish technology for India  
Indian iron for Malaysia  
Indian Au finds  
Copper belt plan for India  
Boost for Hindustan Zinc  
Indian coal for Bangladesh  
India to import copper  
Indian Pb, Zn and dolomite  
finds  
Indian copper  
Indian potlines lack power  
Indian order for GMT  
Indian Au finds  
First Indian Co plant likely  
India requests U.S.S.R.  
financing  
Indian gold refinery  
Indian coal washeries  
Power shortage for HCL  
Indian order for Babcock  
Minerals  
Lignite find in India  
Indian Mn nodules found

IA J141  
H M129  
IA J180  
IA J315  
IA J323  
IA J326  
H M197  
IA J253  
IA J276  
IA J276  
IA J308  
H M266  
IA J344  
IA J359  
IA J376  
H M349  
H M349  
H M349  
H M349  
IA J438  
IA J438  
IA J439  
IA J441  
H M456  
H M456

## INDONESIA

Indonesian coal exploration  
Jemberana in Indonesia  
Indonesian survey completed  
Isco cuts back in Indonesia  
Asahan complex inaugurated  
Geothermal exploration in  
Java  
Indonesia's tin expectations  
South-east Asian mining  
events, 1982  
Indonesia and the 6th ITA  
Indonesia coal project  
Mineral output and outlook  
Dintan agreements for Kaiser  
Indonesia receives World  
Bank loan  
Nickel imports trimmed

IA J049  
IA J065  
H M085  
IA J085  
IA J086  
IA J141  
IA J142  
M M169  
IA J217  
H M195  
MW J271  
IA J276  
IA J418  
IA J472

## IRAN

Sar Cheshmeh  
Iran seeks Indian help  
Iranian Cu mill starts  
Sar Cheshmeh on stream

IA J086  
IA J180  
H M197  
IA J418

## IRAQ

Greece-Iraq plan

IA J254

## ISRAEL

Smelting test recaptures  
ancient copper industry  
Israel and emeralds  
Israeli phosphate  
Israeli phosphate find

P M009  
IA J255  
IA J307  
H M445

## ITALY

Porte Mosca zinc halt  
Salafosma re-opening  
Sardinia gets approval  
Feasibility work on Sardinian  
bauxite

IA J101  
IA J323  
IA J343  
IA J418

## JAMAICA

Bauxite levy eased  
Return to work for Alpart  
workers  
Delay in signing bauxite  
pact  
More Jamaican cutbacks for  
Alcan  
Bauxite agreement  
Further decline in Jamaican  
production  
Bauxite bartering deal  
signed  
Alcoa's Jamaica strike ends  
Jamaican bauxite target  
Sharp decline for Jamaican  
exports  
Bauxite-alumina deal  
considered  
Jamaica layoffs threatened  
Alcan cuts back in Jamaica  
Jamaican investment for  
Reynolds

MW J024  
IA J051  
IA J087  
IA J101  
IA J142  
MW J169  
IA J140  
IA J236  
IA J323  
IA J344  
IA J360  
IA J419  
IA J439  
IA J456

## JAPAN

Stockpile programme  
Soviet coal for Japan  
Aluminium advice for  
Japanese government  
Japan cuts back on coal and  
iron ore  
Mitsui rationalisation  
Japanese interest in Coral  
Canyon mine  
Austrian ore to cost more  
for Japan?  
Smelting halt for Sumitomo  
Australian U for Japan?  
Japan signs Tin Agreement  
Japanese help for Pakistan  
chinaclay

MW J007  
IA J014  
IA J015  
MW J025  
IA J050  
IA J085  
IA J086  
IA J126  
IA J182  
IA J183  
H M129

Rise in Japanese gold  
imports  
Japan investment for Tonopah?/IA  
Japan questions N.S.W. coal  
loader  
Safeguards agreement  
finalised  
Less Au ferrochrome for Japan?/IA  
Hishikari mine go-ahead  
Japan to stockpile aluminium  
Japan continues iron  
negotiations  
More gold discovered in  
Japan  
Down to increase Esuri  
output  
Synthetic diamond  
Man-made islands for mining  
in Japan  
Japanese metals expectations  
Mitsui SBC/CSB Coal  
Conversion study  
Anglin agreement  
Japanese in coal development  
CIA loan agreement  
Research for underground  
roboats  
Coal handling agreement  
Smelter shutdown  
Japanese gold imports  
Japanese Pb/Zn finds

IA J181  
IA J200  
IA J300  
IA J200  
IA J216  
IA J233  
IA J277  
IA J292  
IA J307  
IA J308  
IA J323  
D M332  
IA J343  
IA J375  
IA J395  
IA J395  
IA J397  
H M349  
IA J419  
IA J471  
IA J472  
H M447

## JORDAN

Jordan's copper hopes  
World Bank loan for Jordan  
French consortium to develop  
Shididi deposit  
Dead Sea project inaugurated  
French to study Jordan  
phosphates  
Soltrast wins Jordan  
contract

IA J065  
IA J069  
IA J215  
IA J215  
H M267  
IA J419

## KOREA (SOUTH)

Koreans consider Australian  
smelter  
South Korea's mineral plans  
S. Korea anthracite and Pb-  
Zn find  
Provisional coal agreement  
Mining order from South  
Korea

IA J086  
IA J194  
H M195  
IA J457  
IA J457

## LESOTHO

De Beers closes Letseng

MW J369

## MALAGASY REPUBLIC

Malagasy/Libyan talks on U  
production

H M014

## MALAWI

Malawi prospecting

H M199

## MALAYSIA

Sabah copper smelter  
Dispute over Sabah smelter  
Fall in Malaysian exports  
Malaysian Cu find  
First Malaysian Cu smelter  
Southeast Asian mining  
events, 1982  
Pengkalen dredge on c & m  
Tin dredging at Berjuntan,  
Malaysia  
Malaysian tin output  
Offshore mining for Malaysia  
Coal mines for cement  
Malaysia threatens further  
cutbacks  
Malaya Chamber of Mines  
reports  
Malaysian tin output  
Order for diamond drills  
Malaysia agrees to Sixth ITA  
but...  
Peninsular exports

IA J030  
H J068  
IA J161  
H M129  
H M129  
H M169  
IA J180  
A M200  
IA J307  
IA J309  
H M266  
IA J343  
MW J409  
IA J419  
IA J457  
MW J465  
IA J471

## MALI

Mali Au prospects

H M127

## MEXICO

Spanish-Mexican agreement  
Sicartas contract for Bravo  
Mexican gold study  
Ex-In Bank loans  
Loan for Compania Minera de  
Cananea  
Barite award for ECA  
Real de Angeles on stream

IA J014  
IA J186  
IA J199  
IA J235  
IA J236  
IA J293  
MW J449

## MOROCCO

BRPM seeks finance  
Moroccan mining finance  
Moroccan oil shale project  
Loan for Morocco  
Morocco's coal plan  
Moroccan pilot project

IA J086  
H M197  
H M198  
H M355  
H M355  
H M445

## MOZAMBIQUE

Aluminum refinery study for Mozambique	IA	J141
Mozambique project for Hunting	IA	J418

## NAMIBIA

Namibia Ta exploration	H	M199
------------------------	---	------

## NEPAL

The mineral industry in Nepal	A	M161
-------------------------------	---	------

## NEW ZEALAND

New Zealand mining evolution	H	J223
NZ smelter extension plan	IA	J253
Pechiney terms rejected by N.Z.	IA	J382
Smelter talks fail	IA	J470

## NICARAGUA

Nicaragua gold output U.S.B.R. pledge aid for Nicaragua	H	M446
---	---	------

## NIGER

Iron ore study for Niger	IA	J253
Japan reports Niger uranium find	IA	J307
Niger U finds	H	M445

## NIGERIA

Nigeria reports iron ore reserves	IA	J358
Nigerian Fe ore find	H	M446

## NORWAY

Sydvaranger's new mill	A	M030
Outback for Norwegian Al producer	IA	J292
Groengrubber aim for productivity	P	M259
Sales agreement for Koppers and Aker Industri	IA	J376
Falcombridge to close Norwegian refinery	IA	J440

## OMAN

Oman Cu project, delayed	H	M445
--------------------------	---	------

## PACIFIC ISLANDS

Ok Tedi contracts Papua-New Guinea Cr. Co. Ni deposit	IA	J014
Ok Tedi financing	IA	J141
Ok Tedi finance secured	MW	J156
SEC loan for Papua - New Guinea	H	M126
Le Nickel's production down	IA	J177
More on Kame River	MW	J211
Financing arrangements for Ok Tedi, Stage I	P	M258
News on Papua New Guinea's Cr-Co-Ni deposit	H	M265
U.K. credit for Ok Tedi	H	M349
PMG gets biggest crane	IA	J441
Emperor estimates 1981-82 output	IA	J471

## PAKISTAN

Pakistan to market minerals in Middle East	IA	J014
Pakistan coal deposits	IA	J089
Pakistan coal deposits	IA	J143
Japanese help for Pakistan	H	M129
Chinaclay in Pakistan	H	M129
Pakistan coal news	H	M129
Pakistan coal news	H	M266
Pakistan gem project	IA	J344
Trouble for Gemstone Corp. of Pakistan	IA	J374

## PANAMA

Slow progress for Cerro Colorado	IA	J049
Potash plant rekindled	MW	J211

## PARAGUAY

Mineral concession in Paraguay	IA	J180
--------------------------------	----	------

## PERU

Peru Po-Sn find	H	M013
Antamina open for bids?	MW	J116
Concentrator work for Kaiser	IA	J198
Compensation fund for Peruvian miners	IA	J198
Peruvian energy project	H	M131

Problems for SPPC	MW	J171
Loan for Peru	IA	J179
Peru welcomes foreign prospectors	IA	J200
Peru details metals output	IA	J200
Peruvian copper miners lift strike threat	IA	J217
Mineral earnings fall	MW	J228
SPPC cancels refinancing plans	IA	J233
New Cu Andean concentrator	H	M197
Peru: lead and zinc finds	IA	J307
Cajose strike	IA	J308
SPPC force majeure	IA	J323
\$10 million loan for Peru	H	M263
SPPC strike over	IA	J345
Monterrosa in production	MW	J370
Cobrisa inauguration	IA	J419
Centromina, Peru, expands its		
Cobrisa copper mine	P	M441
Peru's Po/Sn finds confirmed	H	M446
Cerro Verde Phase II	H	M446

## PHILIPPINES

Atok closure?	IA	J030
Mitsubishi shows Philippine interest	IA	J049
Causayan reserves proved	IA	J085
Philippines fund to aid mining companies	H	M017
Austrian uranium for Philippines	IA	J102
Southeast Asian mining events in 1982	H	M169
Philippines suspensions	IA	J180
Philippine problems	H	J207
Philippines Cu fund	H	M195
Causayan reserves proved	H	M195
Philippines U supply	H	M197
The Disos copper-Philippines project	A	M268
State aid for miners	MW	J410
CIPAC invitation for Philippines	IA	J441
Philippines produces more gold	IA	J456
Threat of mine closures	IA	J470

## POLAND

Polish coal to Germany down	IA	J014
Polish coal predictions	IA	J030
Polish bauxite find	H	M185
Coal in Polish ports	IA	J161
New Polish salt mine	H	M131
Poland - industrial production improves	IA	J215
Polish technology for India	IA	J233
Poland offers coal to Japan	IA	J255
Polish coal seams	IA	J342
Five-decade push for Polish coal mining	A	M263
Polish coal output rises	IA	J418
Polish coal exports	IA	J472
Polish lignite find	H	M445

## PORTUGAL

Spain wins Portuguese contract	IA	J236
Spanish contract for Portugal	H	M263

## ROMANIA

Romanian Cu mine	H	M129
------------------	---	------

## SAUDI ARABIA

Halco sells to Saudi Arabia	IA	J161
Saudi Arabian mineral finds	H	M445

## SIERRA LEONE

Marampa Fe to be rehabilitated	H	M127
Sierra Leone kimberlite	IA	J343
Sala wine components contract	IA	J360

## SOUTH AFRICA

Krugersand in demand	MW	J024
Harties orders radiometric sorter	IA	J031
Mine purchase for Marlin Investments	IA	J031
Incor awards contract	IA	J087
S.A. gold output falls	IA	J086
Delkor clarifier for Buffelsfontein	IA	J087
Safety award for Gold Fields'		
South Africa coal mine P	M005	
W mining in S. Africa	H	M014
Special-purpose vehicles for diamond mining	H	J099
Wit Nigel curtailment	IA	J103
New shaft underway at ERPM	IA	J124
Wagdracht spending programme	IA	J125
Golden Dumps buys Delkor thickener	IA	J142
South Africa coal sales	IA	J143
MWU rejects Wiehahn	MW	J167
Electric fault at Kloof	IA	J160
Expansion at Western Deep Levels, South Africa	P	M131
11 Mt/y plus coal project in Transvaal	P	M132

Troubles for marginal gold mines	MW	J172
Further fall for the Rand	MW	J194
Beisa Mines: official opening	IA	J200
Anglo sells Middelplaat	MW	J212
Krugersand sales	IA	J216
Less S.A. ferrochrome for Japan	IA	J216
S.A. budget hits gold & diamond miners	MW	J227
Ador suspension	IA	J234
Delkor receives double	IA	J234
Poskor order	IA	J235
The Anglo view	MW	J247
First blast at Western Deep	IA	J247
KPM shelves plans	IA	J254
Start-up for S.A. tailings project	IA	J254
Withank coal for Japan	IA	J255
Heavy falls in gold and diamonds	MW	J271
Coal fares better	MW	J271
KwaZulu mine planned	IA	J281
Krugersand sales up	IA	J292
Western Areas uranium for Germany	IA	J292
More coal contracts	MW	J302
Order for Bavitroch	IA	J308
Tremor kills Geduld miner	IA	J309
FB Geduld accident: target not affected	IA	J332
Gold mine killed	IA	J324
Kloof fire	IA	J343
Sand treatment plant	IA	J343
S.A. gold output	IA	J343
Prize abandons deep ore	IA	J399
Premier sub-sill project	MW	J369
halted	IA	J375
Shaft damage at Durban Deep	IA	J375
Krugersand sales fall	IA	J376
More coal exports in the offing	MW	J389
Radiometric sorting at Buffelsfontein Gold/Uranium mine, South Africa	A	M393
De Beers alters production balance	MW	J410
Full production at FSG	IA	J419
Soda-salt plant for Anglovaal	IA	J470
S.A. gold output falls	IA	J470
Serious problems for W.R. Cons.	IA	J471
Beisa Mine	A	M448

## SPAIN

Spanish-Mexican agreement	IA	J014
Annular agreement	IA	J130
Asland Coal: Spanish stake	IA	J217
Spain wins Portuguese contract	IA	J236
Endasa smelter cutbacks	IA	J254
Mining hit by Spanish strike	IA	J309
Spanish miners: hunger strike	IA	J334
Spanish contract for Portugal	H	M263
Endasa reduces Al output	IA	J470

## SRI LANKA

U deposits in Sri Lanka	H	M129
Sri Lanka's uranium potential	IA	J199

## SUDAN

Optimism for mining	MW	J433
---------------------	----	------

## SURINAM

Billiton to cut Surinam output	IA	J085
Surinam outback for Billiton	IA	J419

## SWEDEN

Major Swedish companies join forces	M	J084
Granges buys Lanco interest	IA	J143
Joint ventures for Australia discussed	IA	J254
BP-LKAB talks	IA	J342
Atlas Copco buys 7.6% interest in Boliden	IA	J376
Swedish research mine aims to raise productivity	P	M385

## SWITZERLAND

Switzerland to join tin agreement	IA	J087
-----------------------------------	----	------

## TAIWAN

Canadian coal for Taiwan	IA	J143
--------------------------	----	------

## TANZANIA

Tazara rail talks	IA	J217
-------------------	----	------

## THAILAND

Thailand signs Tin Agreement	IA	J103
------------------------------	----	------

Thyssen wins contract in Thailand	IA	J104
Thai tin output declines	IA	J234
Thailand potash study	H	M197
Tungsten: isostatic tremors in Bangkok	MW	J370
Thai Zinc agreement	IA	J374
Tongkah considers new dredge	IA	J374
Thai tin exports	IA	J472

## TUNISIA

French finance for Tunisian phosphates	IA	J087
Smelter refurbishment considered	IA	J438

## TURKEY

Hydraulic pit props for Turkey	IA	J105
Phelps Dodge to evaluate Turkish deposit	IA	J322
Turkish contract for Golden Turkish Cu-Sn: more tests	IA	J397
	H	M445

## UGANDA

Uganda awarded World Bank credit	IA	J307
Ugandan phosphate study	H	M445

## U.K.

Invergordon Al smelter to close	MW	J007
Commercial Shearing acquires Lush assets	IA	J015
Shareholders approve option on Howdon	IA	J029
Snowdonia drilling	IA	J039
British technology for Chile	IA	J031
Souly shutdown	IA	J050
Lochaber modernisation	IA	J050
Export award for drill sales	IA	J051
Factory extension for longwall mining		
equipment manufacturer	H	J064
Restrongton plans abandoned	IA	J065
Opencast miners seek new	IA	J069
British help for Indian mines	IA	J087
Belvoir still in doubt	MW	J096
Overburden drilling	IA	J104
U.K. longwall mining equipment to be displayed in China	H	J139
NCB buys equipment	IA	J161
Concentrator order for GEC	IA	J161
LQPM announces opening date	IA	J161
Cornish Sn prospects	H	M131
Workington coal terminal	IA	J181
Conveyor contract for Cable	IA	J183
Coal through Hunterston?	IA	J183
Brighton views	MW	J195
Record achievements	MW	J195
Gloomy forecast	MW	J195
North Sea drilling for NCB	IA	J233
Gearbox for NCB	IA	J235
Cornish Sn project withdrawn	H	M194
Man-made island		
metallurgical plants - feasible?	D	M244
More Belvoir indecision	MW	J247
Marine Mining: permission refused	IA	J253
Drilling at Cornish prospect	IA	J276
British coal for Sweden	IA	J277
Babcock wins U.K. contract	IA	J277
Handling equipment for British Gypsum	IA	J277
Scandura belts for NCB	IA	J277
Ritchies to distribute Gardner-Deaver products	IA	J292
British haulage system for Canadian mine	IA	J293
New London Gold Futures		
Market launched	MW	J301
Exports boost U.K. coal performance	MW	J318
Tin plant to re-open	IA	J323
Queen's Award for Mansons	IA	J324
U.K. hopes to sell to Austria	IA	J324
Artificial islands for the coal mining industry	D	M332
Permission for Wheal Concord	IA	J358
Agreement for Invergordon	IA	J358
Steel order for coal plant	IA	J360
Invergordon progress?	IA	J385
Cornish drilling results	H	M353
The modernisation of Lochaber aluminium smelter	A	M399
NCB investment	IA	J419
New ball mill delivered	IA	J420
Smelter talks withdrawal	IA	J426
Baxter Crushers opens business	IA	J457
Belvoir: the next step	MW	J466
Minerals industry study	IA	J472

## UNITED ARAB EMIRATES

Mineral contract for Hunting	IA	J065
------------------------------	----	------

## UPPER VOLTA

Upper Volta Zn-Pb-Ag discovery	IA	J374
--------------------------------	----	------

## U.S.A.

Shale oil: Cathedral Bluffs project delayed	MW J005
Contract Missing reports	IA J013
silver find	IA J013
Silver processing at Deer Trail	IA J013
Phelps Dodge cutbacks	IA J013
Pipeline financing	IA J015
Rio Blanco completes retort tests	MW J025
Exxon: the big spender	IA J029
Ray Mines plans downtime	IA J030
Target for Lander Creek	IA J030
New gold coin exchange	IA J031
Mineral leasing returns to Interior Department	MW J044
Essex Minerals acquires mining claims	IA J049
Copper Flats opening	IA J049
Montana Tunnel development	IA J050
Sharon Steel suspension	IA J050
Heda stops shipments to Bunker Hill	IA J051
Uranium producers sued in U.S.	IA J051
Silver study agreement terminated	IA J065
Zapata not to sell division	IA J067
Japanese interest in Coral Canyon mine	IA J085
Corpus Christi cutback	IA J086
Hayden closure	IA J086
Four-day week for Cyprus	IA J086
Gas Hills uranium agreement	IA J086
Deserado contract for Barrick Western	IA J086
Quartz Hill contract for Bechtel	IA J086
Investor group declines Bunker Hill option	IA J086
Mineral rights purchased	IA J087
Arizona-Sonora Desert Museum	P M011
Nevada Au/Ag find	H M013
U.S. coal terminals	H M014
EPRI coal cleaning test plant	H M014
Strategic deposits in Pacific	H M014
Orchard Valley mine	A M020
Test success for Exxon	IA J101
Gordonville schedule	IA J101
U.S. Al output down	IA J101
Homet cutback	IA J103
License agreement for Kerr-McGee	IA J104
Sale of Colorado coal mines	IA J104
Florida waste treatment plant	IA J105
Reagan rejects subsidy proposals	IA J105
U.S. to return to the fray	MW J117
Cominco agrees Alaskan exploration	IA J124
New York Assay Office to close	IA J126
Budget cut for Bureau of Mines	IA J126
The State of the Union	N J133
Revival of exploration activity in Alaska	MW J136
Gaquet Mountain report	IA J141
Indiana coal laboratory	IA J142
Copper Range layoffs	IA J142
More gold coins offered in the U.S.	IA J142
U.S. studies in-mine coal preparation systems	IA J142
Coal futures case	IA J142
Bunker Hill seeks plant sale	IA J143
Simon Group contracts	IA J143
U.S. phosphate: abundance in doubt	N J153
In situ leaching at Bluebird	MW J156
Ayerok to re-open mines	IA J160
Total Inspiration	IA J161
USBM on precious metals	IA J161
Coal terminal study	IA J162
Plan to ban wilderness mining	IA J162
Stockpile study schedule	IA J162
Alaskan No project	H M126
U.S. mine reserves rise	H M126
Skyline coal project	IA J179
progress	H M126
Closure cost hits Noranda	IA J179
Lead smelter closure	IA J179

U.S. primary Al production down	IA J179
Mt. Gunnison start-up	IA J180
Listerhill cutbacks continue	IA J180
Fail in U.S. iron ore receipts	IA J181
Coal terminal for U.S.	IA J189
New coal corporate	IA J189
New Mexico property for Boliden	IA J200
Ban on wilderness mining	IA J200
Magma Copper to cut output	IA J216
Formal U.S. stand on Seabed treaty	IA J217
USBM on Alaska deposits	IA J233
First shipment from Deer Trail	IA J233
Al production down	IA J235
Ex-im Bank loans	IA J235
Conversion work for Fluor subsidiary	IA J235
Costa wine mining contract	IA J235
UNC to make nuclear components	IA J236
Bethlehem considers sell-offs	IA J236
Bishop strike over	IA J236
Rich Au find in U.S.	M M194
U.S. coal mine sales	M M194
New U.S. commodity law	S J249
Closure at Ray	IA J254
St. Joe lawsuit reinstated	IA J255
Conveyor systems	IA J255
Placer terminates agreement	IA J276
Mobil report	IA J276
Newmont Mining: more cutback	IA J276
Standard Oil coal deal	IA J276
Compressed air energy storage	IA J277
Minerals policy released	MW J286
Further Synfuels doubts	MW J287
Work on coal report postponed	IA J291
Mercur project: 1983 target	IA J292
Asarco to restart furnaces at Hayden	IA J292
Pierpont start-up	IA J292
Empire and Tilden mines idled	IA J292
Coal lease for U.S. Steel	IA J292
Bunker Hill: abortive rescue efforts	IA J293
Sunshine workforce cut	IA J293
U.S. mineral policy: a broad brush	N J299
Smoky Valley update	IA J307
Coal gas project abandoned	IA J308
Rise for U.S. aluminum	IA J308
Silver from St. Cloud	IA J308
Cuts planned by Martin Marietta	IA J323
Fluor wins contract	IA J324
Modified VCR mining at new U.S. silver project	P M258
McDermitt mine - the U.S.A.'s largest producer of mercury	P M261
Gibbons Creek - new lignite mine in Texas	P M261
Californian Ni-Co reserves	H M266
Production started at Deer Trail	H M266
N. American synfuels projects collapse	MW J333
U.S.-Chinese marketing venture	IA J344
America's distractions	N J351
More cutbacks in the U.S.	MW J353
China signs up U.S. aid	MW J354
U.S. output falling	MW J354
Asarco trims Capex	MW J355
Mining at Glenwood Springs in three years	IA J358
Potash shutdowns	IA J359
Sumitomo to supply terminal	IA J360
Pincock, Allen & Bolt sale	IA J360
Permit for coal terminal	IA J360
Rising supplies	MW J370
Progress for Sunshine Mining	IA J374
Tonopah ore stockpiled	IA J375
Magma cave-in	IA J376
UNC uses General Atomic	IA J376
Bunker Hill demolition	IA J376
Sales agreement for Koppers and Aker Industri	IA J376
Depressed times for steel mills	MW J389
New Mexico work resumes	IA J395

Black Thunder record	IA J397
Manco stake increased	IA J399
Anasoda to sell Montana complex	IA J399
Thermal Energy acquires Montana coal rights	IA J399
New Mexico resources map	IA J399
New Mexico Cu-Zn exploration	H M351
U.S. coal news	H M351
Possible Alaskan Co/Pr?	H M351
Phosphate news in Florida	H M353
Idaho Au mines to reopen	H M353
U.S. liquefaction success	H M353
Protection for domestic uranium producers?	MW J409
Coal mine construction for Santa Fe	IA J418
Turn development for Exxon	IA J418
Study of silver mill	IA J419
Camp Bird mine sale	IA J420
Mowlem makes mine investment	IA J420
Coal venture planned	IA J438
Soda ash start-up	IA J439
Massey Coal buys mines	IA J440
Drilling contracts	IA J440
Cominco sells off	IA J440
Anasoda works resume at Summitville	IA J456
Amx to suspend molybdenum production	IA J456
Reserve closure	IA J457
Pikrore order slope hoist	IA J457
Silver study behind schedule	IA J458
Springer mine opening	IA J470
Amariilo reduction	IA J471
Asarco reduction	IA J471
Coal rate pact	IA J472
New U.S. So mine	H M447
Madre find more Ag	H M447
E.I.S. on strip mining	H M447
Brass Ring assay results	H M447
Possible Alaskan Zn-Pb-Ag project	H M447
U.S. lignite mine	H M447
U.S.S.R.	
Soviet coal for Japan	IA J014
Indian mica for U.S.S.R.	IA J014
Soviet aid for Indian phosphates	IA J039
Belgorod iron ore	IA J089
Flygt pumps ordered by U.S.S.R.	IA J031
New iron ore capacity	IA J086
First ore from Rudnograd	IA J086
Ural mining planners report	D M104
Alaska seeks U.S.S.R. financing	IA J105
Kasakhstan coal	IA J142
Soviet coal below target	IA J142
NEU works on pneumatic conveying	IA J143
Belgorod Fe ore reserves	H M159
New U.S.S.R. mines	H M159
Prediction and prevention of methane outbursts in Russia	D M176
Soviet gold	IA J216
Rail line to Siberian minerals	IA J217
Development at Hg mine	H M195
U.S.S.R. chronos mine	H M195
U.S.S.R. aid for Finland	H M197
U.S.S.R. Fe ore projects	H M197
Ukrainian coal news	H M197
Erdenet: a Soviet-Mongolian mining and ore-dressing deposit	D M245
Work on Estonian phosphorite	IA J291
Soviet uranium for Argentine	IA J295
Decline in self-sufficiency	MW J303
detailed by USBM	IA J323
New Soviet manganese mine	H M266
Fe ore find in U.S.S.R.	IA J343
Kachar mine construction	IA J343
Lead-zinc work	IA J375
Salt mine for Uzbekistan	IA J375
Kostomukha combine	IA J375
Hydraulic stripping of Russian iron ore	D M421
Sublevel caving in the U.S.S.R.	D M421
Coal mine for U.S.S.R.	IA J418
Modernization of Soviet coal	

mine	IA J457
The U.S.S.R. and Commodity markets	IA J458
Soviet coal find	IA J470
New U.S.S.R. Mn mine	H M446
U.S.S.R. Fe ore	H M446
U.S.S.R. salt mine progress	H M447
Recent U.S.S.R. coal reports	H M447
VENEZUELA	
Fire at Venalum	IA J216
Briquette plant closure	IA J216
Fluor to work on Venezuelan project	IA J255
No joy for Venezuela	MW J370
Venezuela's \$200 million Carbosula coal project	P M343
VIETNAM	
Vietnam boosts coal	H M349
YUGOSLAVIA	
Yugoslav gemstone mine	H M013
Yugoslav coal news	H M013
Sasa Pb and Zn project	H M129
New Yugoslav bauxite mine	H M131
Yugoslav anthracite	H M195
Kasani mine progress	IA J254
Mineral targets for Yugoslavia	IA J223
Yugoslav coal	H M263
Yugoslav bauxite find	H M263
Yugoslav Ni complex	H M263
Yugoslav coal output	IA J359
Barytes mine for Yugoslavia	IA J374
11th World Mining Congress	H J391
Yugoslav lead and zinc	IA J397
New Yugoslav Pb/Zn mine	H M353
Yugoslav coal deposits	H M353
11th World Mining Congress, Belgrade Yugoslavia	A M369
ZAIRE	
New aluminum consortium formed	H M014
New era in diamonds	MW J087
Zairean diamond sales	IA J181
Hard times for Zaire	N J267
Malcolville for Zaire project	IA J360
ZAMBIA	
Tailings leach stage III for MCCP	MW J043
Loan for Zambian coal	H M014
Two major Zambian P205 finds	IA J014
EEC aid for Zambia confirmed	H M015
Zambia seeks EEC funding	IA J142
EEC loan for Zambia copper project	H M157
Zambia copper merger	IA J217
Zambia copper and cobalt output	IA J254
Lectra haul expands in Zambia	IA J308
Zambian Cu transport plan	H M267
Zambian targets increased	IA J397
Go-ahead for TLP III at Nchanga	MW J431
ZIMBABWE	
Zimbabwean deficit gloom	IA J013
Mineral reserves Bill introduced	MW J061
ECI matte for Zimbabwe	MW J137
Mining involvement for Zimbabwe Government	IA J217
Wankie coal prices	MW J229
Zimbabwe's mining plans	IA J324
Empress nickel mine on c & m?	IA J358
Renco on-stream	IA J359
Zimbabwe considers Gold Act	IA J399
Perseverance mine - a prospecting case history	A M381
The Renco project	MW J451
Composition of the MMC	MW J466
Opencast expansion project at Wankie	P M442

## Methods and Machines

### ASSAY METHODS

Compact materials analyzer	N J174
Gy-Ro mill for fast grinding	M J261

### AUTOMATION

Feeders for mines	M M098
-------------------	--------

### BLASTHOLE DRILLING

Mechanized production drilling in open pits	M J130
Blasthole drilling	N J350
Impressive drilling performance	M J357

### BLASTING & EXPLOSIVES

Seismogel - a safer seismic explosive	N M315
---------------------------------------	--------

### COAL TECHNOLOGY

Cruiser/dryer for use in fluid bed furnaces	M J046
---	--------

Computer programs for coal mining	M M096
Design award for colliery head-frames	M M099
Major projects in U.S.A., Australia, Canada, South Africa and U.K.	N J175
Modern coal preparation plant in F.R.G.	M M337

Natural radiation utilised in guiding coal cutting machines M J304  
Double ranging drum shearer for U.S. coal mining M M311  
Fine coal treatment in India M J373  
Specialist heat exchangers in coal handling application M M494

## COMMUNICATION

Sydvaranger's new mill High performance coal breaker M J100  
Feeder breakers M M149  
Hydraulic hammer/excavator combination M M171  
New design cone crusher from Sweden M J372  
Attachment to mount rock breaker on loader bucket M J381

## COMPUTERS

New mine hoist data logger M J027  
Computer programs for coal mining M M096  
Performance revealed E M149  
Control system for coal plant M J251  
Simulation of heap and dump leaching A M296  
Computer-directed dispatch system and traffic simulator for open pits M M407  
Data on the rocks MW J451

## CONVEYORS

New design belt cleaner Approval tests on conveyor belts D M104  
FIM order for BTR Belting Feeder breakers IA J104  
New solid-nova conveyor belt plant M M170  
Conveyor equipment for mining worldwide M J197  
Conveyor systems M J373  
Low-maintenance belt cleaner M J415  
Conveyors for potash mine M J417  
Drift belt for Selby M J499  
Solid-back system M J499

## DREDGING

Tin dredging at Berjuntai, Malaysia A M300  
New line of "mini-dredges" M J305

## DRILLING

Improvement to hand-held unit M J028  
New instrument for mast inclination measurement M J046  
Geostat drill diamond M J083  
Major Swedish companies join forces M J084  
All-in-one drill coupling sleeves M J139  
New diamond core drill M J139  
Hand-held drill and sampler M J174  
Hughes Tool acquires General Electric unit IA J181  
Rotary drills for surface mining M M337  
Range of mining drills M M338  
Hydraulic percussive drills up-date A M292  
Improved range of small button bits M M313  
Exploration drilling for chalk in U.S. M M317

## EDUCATION & TRAINING

Funds for tomorrow E M003  
Airline pilot aptitude tests for dragline operators M M094  
Geostatistics for planning IA J162  
Quality control E M119

## ENERGY & POWER

Borehole viewing system for Cornish project M M120  
Geothermal exploration in Java IA J141  
Eastern Gas joins coal-gas project IA J141  
Compressed air energy storage IA J277  
Further synfuels doubts MW J287  
Coal gas project abandoned IA J307

## ENVIRONMENTAL CONTROL

Orchard Valley mine Plan to ban wilderness mining IA J183  
Ban on wilderness mining Fast, cheap Czech method for reactivating mined land M J373  
Hunter Valley environmental study IA J391

Process for removal of cyanide from waste waters M J393

## EXCAVATORS & LOADERS

Norwegian hydraulic face shovels M J047  
Airline pilot aptitude tests for dragline operators M M096  
New wheel loader M M097  
Benefits of back-acter shovels in quarrying D M105  
New bucket tests for shovels M J121  
Bucket wheel excavator for lignite mine M J121  
Hydraulic excavators in the Middle East and Australia M J139  
Hydraulic hammer/excavator M M171  
Buildings A M211  
New 25 yd<sup>3</sup> mining shovel M J289  
New hydraulic loader M J321  
New medium-sized loader introduced M M311  
New elevating scraper M M405  
New 10 yd<sup>3</sup> loading shovel M J454  
W. German crawler-mounted dragline for U.K. M J468  
Tunnelling by machine A M469

## EXHIBITIONS & MEETINGS

Swedish symposium in Mexico IA J015  
Programs for Engineers IA J015  
Geostat meeting IA J015  
Underground excavation design IA J015  
Practical mine permitting in the 80s IA J015  
Mineral processing systems World coal markets IA J031  
Mine development in the 80s IA J089  
Metallurgical contribution to science-based archaeology IA J087  
Arizona-Sonora Desert Museum P M011  
Extrusive metallurgy of copper IA J105  
Bauxite symposium IA J105  
Mineral economics IA J105  
Oceanology International 82, Brighton, England M J120  
Coal convention IA J143  
Successful trading in commodities IA J143  
Coal production and transportation IA J162  
Coal: new markets and technologies IA J162  
Southeast Asian mining events in 1982 M M169  
Brighton views MW J196  
Mineral Title Examination IA J201  
Tunnelling 82 IA J201  
New exploration equipment at PMA M J214  
IMW annual dinner IA J255  
Offshore technology IA J255  
Geomechanics colloquy IA J278  
Statistics in resource development IA J278  
Coal technology IA J278  
BPM meeting IA J278  
Ore deposits workshops IA J283  
Mechanical handling seminar IA J283  
Underground coal conversion IA J309  
Copper conference IA J309  
New methods in magnetic separation M J340  
Mining machinery: call for papers IA J345  
11th World Mining Congress, Belgrade M J391  
11th World Mining Congress, Belgrade, Yugoslavia A M369  
25th anniversary MW J411  
Carbon-in-pulp IA J430  
Ferroclydes - feeling the recession MW J432  
Many interesting new machines at "Exponat" M J436  
Data on the rocks MW J451  
New geophysical equipment at E&G exhibition M J484  
The U.S.A. and Commodity markets IA J488  
Recent advances in mineral science and technology IA J488  
Cadmium conference IA J473  
Exhibition delayed IA J473  
Tunnelling experts from many countries meet in Brighton A M468

## EXPLORATION

Mineral exploration by public sector MW J009  
Prospecting in Greece IA J039  
Swedish drilling Bechtel to help developing countries IA J143  
The mineral industry in Nepal A M161  
Hand-held drill and sampler Peru welcomes foreign prospectors IA J200  
New exploration equipment at PMA M J214  
The origin of metals: a speculation A M226  
New seismic energy source M J321  
Exploration drilling for chalk in U.K. M M317

New geophysical equipment at E&G exhibition M J454  
Free software for portable magnetometer M J468

## FILTRATION

Order for belt filter IA J235  
Horizontal filter in glass sand preparation M M413

## FLOTATION METHODS

400 ft<sup>3</sup> cell successful in coal preparation M J012  
Flotation machines A M035  
Bubble tube pulp level controller M J159

## GEOLOGY & ORE RESERVES

Nickel resource analysis A M061  
Tape recorder for geosynographs M J174  
The origin of metals: a speculation A M226  
Correspondence L M235  
Data reliability in ore reserve assessments L M379  
Tin mineralisation in Central Goias, Brazil A M461

## HEALTH & WELFARE

Novel pressure ventilated heat M J037  
Monitoring radioactive decay products M J089

## INSTRUMENTATION

Borehole viewing system for Cornish project M J120  
Tape recorder for geosynographs M J174  
Performance revealed E M169  
Three-in-one portable borehole logger M M411  
Monitoring fan at U.K. colliery M M495

## LABOUR

Strike action closes Tara ACTU reconsiders uranium Return to work for Alpart IA J051  
Jamaica closure IA J051  
Canadian focus on manpower problems MW J061  
Australia coal strike IA J069  
World Bank loan for Jordan IA J069  
Opencast miners seek new deal IA J069  
Tara redundancy notices IA J087  
Funds for tomorrow E M003  
Early retirement at Sudbury IA J126  
Tara peace move IA J126  
Strike at Bolivian tin mines Compensation talks IA J126  
Peruvian miners IA J126  
Bauxite agreement IA J142  
Copper Range layoffs IA J142  
MWI rejects Wehann NW J157  
Jeffrey mine layoffs IA J161  
Kennecott idles Utah labour IA J183  
SQC strike postponed IA J200  
Peruvian copper miners lift strike threat IA J217  
Alcoa's Jamaica strike ends IA J236  
Bishop strike over IA J236  
Strike hits Bolivian industry IA J255  
Coal mine tragedy IA J285  
Belmorat acquitted over mine accident IA J355  
Falconbridge contract ratified IA J355  
LEAB to cut workforce IA J378  
Inco cut research staff IA J378  
Hamerley strike IA J383  
Bella layoffs IA J383  
El Romeral labour cutbacks IA J383  
Bunspride workforce cut IA J383  
Cusajone strike IA J383  
Hamerley strike ends IA J383  
Tremor kills Geduld miner IA J383  
Mining hit by Spanish strike IA J383  
Noranda offer rejected IA J383  
Gold miners killed IA J384  
Copper talks postponed IA J384  
Spanish miners: hunger strike IA J384  
Sherritt Gordon contract agreement IA J345  
Mines remain idle IA J345  
SQC strike over IA J345  
ACTU: uranium quandary IA J345  
Kambada staff reduction IA J399  
Iaco talks break down IA J399  
Australian mining towns to get TV P M343  
Noranda offer accepted IA J419  
Jamaican layoffs threatened IA J441  
No aid for Australian mine Placer layoffs IA J441  
Gulf uranium mine troubles Valleyfield talks IA J441  
Civil services E M439

## LEACHING

Simulation of heap and dump leaching A M298

## MAINTENANCE & LUBRICATION

Lubrication M J011  
Lubricating system for small grinding mills M J250  
Minimising wear in iron ore surge silo hopper M J393  
Mine car cleaning system M J415

## METALLURGY

SQL lead recovery process M J064  
Quality control E M119  
Man-made island metallurgical plants - feasible? D M244  
Simulation of heap and dump leaching A M296  
Beiss mine A M448

## MINE COMMUNICATIONS

Beam waveguides M J047

## MINE HOISTING

New mine hoist data logger M J027  
Mammoth wire ropes M J198  
World's first frequency-controlled winch M J340  
Shaft signal recording M J455  
Pikrore order aloft hoist IA M457

## MINERAL PROCESSING

Sizing equipment M J011  
Microprocessor-based ore sorting system M J083  
Wet high intensity magnetic separator M J084  
Flotation machines A M035  
Araza niobium mine A M134  
Screening and compacting M J198  
Effective hydrocyclone installation M J198  
Tin dredging at Berjuntai, Malaysia A M200  
Mobile carbon-in-pulp module M J289  
The Dixon copper-gold project, Philippines A M268  
Iodine: its markets and availability A M282  
New methods in magnetic separation M J340  
Dense medium separation Radiometric sorting at Buffelsfontein gold/uranium mine, South Africa A M393  
Study to evaluate Brazilian shale oil treatment method M J417  
Highly efficient, low cost hydrocyclone filter M J454  
Renold wins export gear orders IA J457  
Mineral separator for upgrading alluvial and tailings materials M J468  
Spinning riffles for accurate mineral sampling M J468  
Solar evaporation simulator with further mineral processing applications M M491  
Pneumatic tube system for handling mineral samples M M493  
Sandwasher for oil removal M M498

## OFFSHORE & DEEP SEA MINING

Oceanology International 82, Brighton, England M J120  
Brighton views MW J196  
Formal U.S. stand on Seabed treaty IA J217  
Offshore mining for Malaysia IA J309  
Ocean Mining E M257  
Convention adopted, but... MW J335  
Seabed mining talks IA J376

## OPENCAST MINING

Mining activity in the Western World A M067  
New bucket teeth M J121  
Araza niobium mine A M134  
Dragline bucket with effective wear-resistant lining M J301  
The Dixon copper-gold project, Philippines A M268  
F.R.G. opencast mining equipment for U.S. phosphate mine N J372  
Computer-directed dispatch system and traffic simulator for open pits M M407

## PIPELINES

Pipeline financing IA J015  
Coal slurry system to move Appalachia coal M J028  
Joint dense phase test facilities offered in U.S. N J230



## PNEUMATICS & HYDRAULICS

Hydraulic percussive drills up-date	A	M292
Pneumatic tube system for handling mineral samples	M	M493

## POLITICO-ECONOMIC

Decisive year for Brazil Stockpile programme	N	J001
Zimbabwean deficit gloom	IA	J013
Colombian profile	N	J021
Greece begins nationalisation programme	IA	J031
Mining bill deferred	IA	J031
Mineral leasing returns to Interior Department	NW	J044
Mineral marketing Bill introduced	NW	J061
Latin America - mineral cornucopia	N	J077
China to use foreign funds	IA	J087
Funds for tomorrow	E	M003
Mining activity in the Western World	A	M067
Changing times for France	N	J093
Reagan rejects subsidy proposals	IA	J105
Waiting for the upturn	NW	J118
South Korea's mineral plans	IA	J124
New York Anasay Office to close	IA	J126
Budget cut for Bureau of Mines	IA	J126
The State of the Union	N	J133
The mineral industry in Nepal	A	M161
The Roxby indenture	NW	J194
Philippine problems	N	J207
Mining involvement for Zimbabwe Government	IA	J217
New Zealand mining evolution	N	J223
S.A. Budget hits gold and diamond miners	NW	J227
Ottawa details mineral policy stance	NW	J227
Delay for Chilean code	IA	J236
Basic concepts of mine financing	A	M230
Mixed fortunes for minor metals	N	J243
Hard times for Zaïre	N	J267
Oil glut strains	N	J283
Minerals policy released	NW	J286
U.S. mineral policy: a broad brush	N	J299
COMECOM in the 1980s	N	J315
Zimbabwe's mining plans	IA	J324
Ocean Mining	E	M267
Financing arrangements for On Tedi, Stage I	P	M236
Recession bites down under America's distractions	N	J331
Profile on Ecuador	N	J367
Action programme for coal	N	J383
Gold - price revival in prospect	NW	J385
Zimbabwe considers Gold Act	IA	J399
The Phoenix syndrome	E	M337
State aid for miners	NW	J410
Forecasting the impossible?	N	J427
Optimism for mining	NW	J433
Looking for recovery	N	J447
Mineral supply and the consumer	N	J463
Labor fails to halt Roxby Downs legislation	NW	J465
Composition of the MMC	NW	J466

## PROSPECTING

New portable automatic base station magnetometer	M	J175
Persistence mine - a prospecting case history	A	M361
Airborne surveying	M	J415

## PUBLICATIONS

Tunnelling history and my ore involvement	R	M095
Manuel du prospecteur minier	R	M095
Design and construction of tailings dams	R	M095
Principal uses of lead and zinc	IA	J105

The Economics of Gallium	IA	J126
Control of Carcinogens	IA	J126
Application of rock mechanics to cut and fill mining	R	M168
Thailand - mines and mineral deposits	R	M168
Uranium mining and radiation safety	R	M168
The Economics of Germanium	IA	J183
Mining International Year Book	IA	J201
Resources of ACP countries	IA	J201
Mineral background papers	IA	J201
Gold regulations & taxes for mining etc.	R	M236
Energy - coal	R	M236
Non-ferrous metals	R	M236
Coal prediction	IA	J278
Saudi mineral report	IA	J278
Agglomeration future	IA	J278
Investment grants 1972	IA	J293
Coke development until 1990	IA	J309
World trade in lead and zinc	IA	J309
The economics of coal	IA	J309
Thomson's Oil and Gas Year Book	IA	J324
Geochemical data for England and Wales	IA	J324
Geophysical case study of the Woodlawn Obolody, N.S.W., Australia	P	M309
The Notts. Coalfield, 1881-1981	R	M309
Coal - a pictorial history of the British coal industry	R	M309
New Mexico resources map	IA	J399
Copper production costs	IA	J400
French building stone industry	IA	J400
Fibre optic and telecommunications	IA	J400
Precious metal information retrieval	IA	J400
New tungsten newsletter	IA	J400
Design and operation of caving and sublevel stoping mines	R	M403
Proceedings of the First U.S. Water Jet symposium	R	M403
Coal - trade, transportation & handling	R	M403
South African mine valuation	R	M489
Memento des Mines et Carrieres	R	M489

Non-vibrating unit for wet-sticky media	M	M409
---	---	------

## STRATA CONTROL

New capsule product for rock reinforcement	M	J099
--	---	------

## TAXATION & TARIFFS

Zurich removes gold sales tax	NW	J024
Major miners press for "protection" reform	NW	J080
N. Territory royalties reduced	IA	J217
Bolivia rethinks export tax	IA	J236
Basic concepts of mine financing	A	M230
Bolivia removes tax	IA	J277

## TRADE & STATISTICS

China's metal ahead of target	IA	J014
Pakistan to market minerals in Middle East	IA	J014
Ferrochrome supply and demand	N	J041
Coal must close the gap	N	J067
Latin America - mineral cornucopia	N	J077
Aluminium: an optimistic view	NW	J080
Nickel resource analysis	A	M061
Mining activity in the Western World	A	M067
Imperial Smelting in 1981	IA	J101
ITM order for BTR Belting	IA	J104
Gold reviewed	N	J113
Rumblings continue	NW	J118
Uranium: a preliminary view	N	J134
Differing outlooks	NW	J137
Decline in magnesium production	IA	J161
Stockpile study schedule	IA	J162
Tin promotion and technical development	A	M156
Peru details metals output	IA	J200
Zinc: no respite for Europe	NW	J210
Poland - industrial production improves	IA	J215
Mineral savings fall	NW	J228
Basic concepts of mine financing	A	M230
Mixed fortunes for minor metals	N	J243
New U.S. commodity law proposed	S	J249
Australia details output	IA	J254
Mineral output and outlook	NW	J271
World lead output increases	IA	J292
Fall in tin exports	IA	J293
Plumbing the depths	NW	J301
Decline in self-sufficiency detailed by USBM	NW	J302
Iodine: its markets and availability	A	M282
Hydraulic percussive drills up-date	A	M292
A London view	NW	J333
OECD production continues to fall	NW	J337
Japanese metals expectations	IA	J343
A downward revision	NW	J387
Aluminium output falls	IA	J385
Essential fertilisers	N	J407
Forecasting the impossible?	N	J427
Production slips to 5-year low	NW	J431
Feeling the recession	NW	J432
Looking for recovery	N	J447
Mineral supply and the consumer	N	J463
Aluminium output falls	IA	J471

U.S. mineral policy: a broad brush	N	J299
COMECOM in the 1980s	N	J315
Zimbabwe's mining plans	IA	J324
Ocean Mining	E	M267
Financing arrangements for On Tedi, Stage I	P	M236
Recession bites down under America's distractions	N	J331
Profile on Ecuador	N	J367
Action programme for coal	N	J383
Gold - price revival in prospect	NW	J385
Zimbabwe considers Gold Act	IA	J399
The Phoenix syndrome	E	M337
State aid for miners	NW	J410
Forecasting the impossible?	N	J427
Optimism for mining	NW	J433
Looking for recovery	N	J447
Mineral supply and the consumer	N	J463
Labor fails to halt Roxby Downs legislation	NW	J465
Composition of the MMC	NW	J466

## PUMPING & DRAINAGE

Hydraulic submersibles	M	J415
------------------------	---	------

## RESEARCH

IGS ore standards	IA	J031
Diamond research funded	IA	J031
Quality control	E	M119
Tin promotion and technical development	A	M156
Palladium replaces gold	IA	J472
Minerals industry study	IA	J472

## RUBBER & PLASTICS

New abrasion-resistant coating	N	J140
Tough new rubber lining	N	M172

## SAFETY

Novel pressure ventilated helmet	N	J027
New salt cutting machine	M	J159
Prediction and prevention of methane outbursts in Russia	D	M176
Automatic fire extinguishing for underground vehicles	N	J230
Detector for environmental and personnel radon monitoring	M	J273

## SCREENING

Linear motion screens	M	J047
Tough rubber screen cloths	M	J159

## TRANSPORT-GENERAL

Newcastle loading problems	IA	J031
Ben Lomond ore flow out	IA	J031
Success for salvage operation	IA	J031
Uranium shipments resumed	IA	J031
Newcastle port plans: support deferred	IA	J089
Coal terminal for Vancouver	IA	J089

Ore carrier lost	IA	J183
Rail line to Siberian minerals	IA	J217
Taxara rail talks	IA	J217
New 25t. Cat-powered articulated dump truck	N	J230
New Swedish mining truck	N	J289
Rail Act challenged	IA	J344
Tractor units for mining	N	J357
Portable skip dumper	N	J393

## TRANSPORT - UNDERGROUND

Special-purpose vehicles for diamond mining	N	J099
New battery-powered mine locos	N	J231
Australian loader aimed at export markets	N	J290
Finnish loaders in South African gold mine	N	J341

## TUNNELLING & SHAFT SINKING

Diesel-driven trucks prove effective	N	J083
Shaft sinking	IA	J087
Raise boring heads from Sweden	N	J250
Tunnelling under the Channel	N	M404
Rapid concrete handling in tunnelling	M	M411
Civil services	E	M439
Tunnelling by machine	A	M469
35 m/d tunnel boring machine advance in Austria	N	M493
Tunnelling experts from many countries meet in Brighton	A	M458

## UNDERGROUND MINING

Mine scaling unit	M	J011
Electric LHDs	M	J027
Factory extension for longwall mining	N	J064
equipment manufacturer	M	J064
New diesel coal scoop	A	M030
Orchard Valley mine	A	M067
Mining activity in the Western World	A	M067
Purpose-designed rock scaler	M	J100
U.K. longwall mining equipment to be displayed in China	N	J139
New salt cutting machine	M	J159
Large scale underground mining - a reader's comment	A	M167
Longwall mining equipment display	N	M170
Blasthole charging vehicle	N	J304
Large scale underground mining	L	M307
Tunnelling and longwall equipment exports	N	J367
Continuous miner for coal and other minerals	N	J372
Hungary turns to coal	A	M258
Undercut and fill stopping - a review	D	M421
Sublevel caving in the U.S.S.R.	D	M423
Beisa mine	A	M448

## VENTILATION & DUST CONTROL

Unique ventilation project at Canadian nickel mine	P	M193
New anemometer with direct digital readout	M	J372
Monitoring fan at U.K. colliery	M	M495

## Companies and Other Public Bodies

Aberfoyle	MF	J091
MF J219	MF	J295
Ace Vulcanising Ltd.	N	J373
Adanac Mining	MF	J128
Agip	IA	J235
Airflow Developments	M	J272
Oy Alram AB Kometa	M	J139
Aker Trondelag A/S	A	M030
Alcoa	MF	J017
MF J090	IA	J101
Alcoa	MF	J186
Alcoa	IA	J430
Alcoa	IA	J470
Alcoa	IA	J051
Alcoa	IA	J397
Alcoa	MF	J380
Alcoa	A	M025
Alcoa	MF	J090
Alcoa	MF	J147
Alcoa	A	M025
Alcoa	MF	J128
Alcoa	MF	J294
Alcoa	IA	J344
Alcoa	IA	J344
Alcoa	IA	J486
Alcoa	IA	J125
Alcoa	A	M138
Alcoa	N	J437
Alcoa	MF	J020
Alcoa	MF	J329
Alcoa	IA	J438
Alcoa	IA	J486
Alcoa	IA	J125



[illegible]